

Memorandum



EAD
99
980.6

DATE: November 12, 1986

TO: Dan Haw

FROM: Terry Kakida *TK*

SUBJECT: Test Results ~~from~~ Capacitor Explosion in Equipment Truck

Attached to this memorandum are copies of the laboratory reports detailing analyses of wipe samples collected on October 24, 1986, from an equipment truck containing a small capacitor which exploded. This explosion occurred some time before sampling activities by EAD occurred; we were notified of this incident on October 23 (phone call from John Gustafson to Chris Luboff). The capacitor, according to the conversation between John and Chris was determined to be PCB.

Because smoke and burning odors were reported, samples for both PCBs and dioxin/furan homologues were collected from 2 areas:

- o Rear panel of equipment cabinet - visible oily soot areas.

Sample No. NSC-1-P 10 cm x 10 cm area for PCB analysis
Sample No. NCS-2-D 30 cm x 30 cm area for Dioxin/Furan analysis
- o Ceiling of truck above driver's seat.

Sample No. NSC-2-P 10 cm x 10 cm area for PCB analysis
Sample No. NSC-2-D 30 cm x 30 cm area for Dioxin/Furan analysis

Samples were collected with cotton gauze soaked in hexane.

Sample results indicate that contamination of PCBs and dioxin/furan homologues appears to be confined to the interior of the equipment, and does not appear to have migrated toward the front of the truck. In addition, contaminant residuals do not appear to occur at acutely toxic levels. However, we believe that further cleanup of the equipment interior is warranted. Based on conversations with Jain Rutherford, we recommend the following procedures:

- o Personnel implementing this cleanup should wear protective gloves and goggles at a minimum.

Dan Haw
Page 2
November 12, 1986

- o Care must be taken to properly contain and dispose of rinsate, solvents/detergents, rags and used gloves. Sorbent materials should be used for containment purposes.

If possible, detergent such as Penetone Power Cleaner (available from the warehouse) should be utilized. If a water-based detergent cannot be used, then the use of organic solvent should be based on consideration of potential hazards associated with their use.

Based on our telephone conversation on Monday (November 10), you assured me that the truck can be utilized without exposure or release of contaminants if equipment panels are replaced and secured, and will be operated in this manner until cleanup is completed.

Please notify our office when cleanup work is completed. I would appreciate receiving a copy of the laboratory report documenting the PCB concentration of the capacitor involved in the explosion incident.

TK:jf

Attachments

with/attachments
cc: Huniah Kakida
 Lavison Luboff
 Jerochim Benson
 Gustafson EAD 980.6
 Rutherford File

CTY0069186

SEA315600

Via Federal Express

California Analytical Laboratories

2544 Industrial Boulevard ♦ West Sacramento, CA 95691 ♦ (916) 372-1393

A DIVISION OF
ENSECO
INCORPORATED

October 30, 1986
Lab No. 26674
Received: 10/25/86
Project: CAP Fire Truck
PO# B61307A

RECEIVED

NOV 3 1986

Terry Kakida
Seattle City Light
1015 Third Avenue
Seattle, WA 98104

Environmental Affairs Division

Two wipe samples were received under chain of custody in four ounce wide mouth jars to be analyzed for total Cl4-Cl8 dioxins and furans.

CAL I.D.
26674-1
-2

Sample I.D.
NSC-1-D 10/24/85
NSC-2-D 10/24/86

RESULTS

In sample NSC-1-D the tetra and penta dioxin regions had several interferences that raised the detection limit considerably. In the tetra dioxin region, two detection limits were calculated. The higher number represents the interference in the total tetra dioxin window. The lower number represents the detection limit for 2,3,7,8-tetrachloro-p-dioxin.

If you have any questions, please call.

Michael J. Miille

Michael J. Miille, PhD
Vice President

Robert S. Mitzel

Robert S. Mitzel
GC/MS Lab Supervisor

jb

This report is for the sole and exclusive use of the client to whom it is addressed.
Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

CTY0069187

SEA315601

California Analytical Laboratories, Inc.

POLYCHLORINATED DIOXIN/FURAN ANALYSIS

TICKET NO. 26674

CLIENT ID: METHOD BLANK

Date Analyzed: 10/29/86

Column: DB-5

CAL ID: 26674MB

Weight: WIPE

FURANS	AMOUNT FOUND (ng/wipe)	DETECTION LIMIT (ng/wipe)
tetra (total)	ND	0.11
penta	ND	0.069
hexa	ND	0.064
hepta	ND	0.13
octa	ND	0.49
DIOXINS		
tetra (total)	ND	0.052
penta	ND	0.080
hexa	ND	0.066
hepta	ND	0.16
octa	ND	0.60

% Accuracy 37Cl-TCDD = 94%

% Recovery 13C-2378-TCDF = 91%

% Recovery 13C-2378-TCDD = 101%

ND = Not Detected

PREPARED BY: BSA

APPROVED BY: BSM

DATE: 10/30/86

California Analytical Laboratories, Inc.

POLYCHLORINATED DIOXIN/FURAN ANALYSIS

TICKET NO. 26674

CLIENT ID: NSC-1-D

Date Analyzed: 10/29/86

Column: DB-5

CAL ID: 26674-1

Weight: WIPE

FURANS	AMOUNT FOUND (ng/wipe)	DETECTION LIMIT (ng/wipe)
tetra (total)	36.1	-
penta	36.0	-
hexa	24.9	-
hepta	11.1	-
octa	10.6	-

DIOXINS

tetra (total) (2378)	ND ND	25.2 * 0.059
penta	ND	38.2 *
hexa	ND	0.21 *
hepta	ND	0.25
octa	ND	0.65

*MPC = Maximum Possible Concentration

% Accuracy 37Cl-TCDD = 101%

% Recovery 13C-2378-TCDF = 53%

% Recovery 13C-2378-TCDD = 65%

ND = Not Detected

PREPARED BY: BAH

APPROVED BY: BSM

DATE: 10/30/86

California Analytical Laboratories, Inc.

POLYCHLORINATED DIOXIN/FURAN ANALYSIS

TICKET NO. 26674

CLIENT ID: NSC-2-D

Date Analyzed: 10/29/86

Column: DB-5

CAL ID: 26674-2

Weight: WIPE

FURANS	AMOUNT FOUND (ng/wipe)	DETECTION LIMIT (ng/wipe)
tetra (total)	ND	0.17
penta	ND	0.069
hexa	ND	0.077
hepta	ND	0.16
octa	ND	0.56
DIOXINS		
tetra (total)	ND	0.033
penta	ND	0.081
hexa	ND	0.092
hepta	ND	0.19
octa	ND	1.2

* Accuracy 37Cl-TCDD = 112%

* Recovery 13C-2378-TCDF = 82%

* Recovery 13C-2378-TCDD = 83%

ND = Not Detected

PREPARED BY: Pit

APPROVED BY: bny

DATE: 10/30/86

California Analytical Laboratories A DIVISION OF **ENSECO** INCORPORATED

CTY0069190

SEA315604

ECOVA ANALYTICAL SERVICES

Kakida

Date Received: 10/24/86

Date of Verbal Report: 10/25/86

Date of Written Report: 10/31/86

Client: Seattle City Light
Contract No: 564540-11
Report To: Terry Kakida
Re: Wipe Samples Submitted for Rush PCB Analysis

<u>Laboratory Sample No.</u>	<u>Client Identification</u>	<u>PCB</u>
EAS111-01	NSC-1-P	700 μ g Aroclor 1254* <u>Per ml Extract</u> <u>Per Wipe Area</u>
EAS111-02	NSC-2-P	≤ 2.5 μ g Aroclor 1254* <u>Per ml Extract</u> <u>Per Wipe Area</u>

μ = Micrograms

* NOTE: No calculations include area of wipe test.

Reported by: *Michael Doubrava* Senior Chemist
Reviewed by: *Marilyn McDonald* Lab Director
Marilyn McDonald

Distribution: Project Manager
Project Accountant

0/09

RECEIVED
NOV 5 1986

Environmental Affairs Division

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